| Ap | pplication No. | Applicant(s) | |
|---|---|---|------------|
| Notice of Alleman life. | /863,670 | FORD ET AL. | |
| Notice of Allowability | aminer | Art Unit | |
| Hu | iyen Vo | 2655 | |
| The MAILING DATE of this communication appears All claims being allowable, PROSECUTION ON THE MERITS IS (OR nerewith (or previously mailed), a Notice of Allowance (PTOL-85) or o NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHT of the Office or upon petition by the applicant. See 37 CFR 1.313 and | REMAINS) CLOSED in other appropriate commu TS. This application is s | this application. If not included nication will be mailed in due co | urse. THIS |
| 1. This communication is responsive to <u>5/23/2001</u> . | | | |
| 2. X The allowed claim(s) is/are <u>1,2,4-13,15-24,26-31 and 33-45</u> . | | | |
| 3. \boxtimes The drawings filed on 23 May 2001 are accepted by the Exami | ner. | | |
| Acknowledgment is made of a claim for foreign priority under a) ☐ All b) ☐ Some* c) ☐ None of the: | 35 U.S.C. § 119(a)-(d) o | r (f). | |
| 1. Certified copies of the priority documents have been | en received. | | |
| Certified copies of the priority documents have been | en received in Application | n No | |
| Copies of the certified copies of the priority documents. | ents have been received | in this national stage application | n from the |
| International Bureau (PCT Rule 17.2(a)). | | | |
| * Certified copies not received: | | | |
| Applicant has THREE MONTHS FROM THE "MAILING DATE" of th noted below. Failure to timely comply will result in ABANDONMENT THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. | is communication to file Γ of this application. | a reply complying with the requi | rements |
| 5. A SUBSTITUTE OATH OR DECLARATION must be submitted INFORMAL PATENT APPLICATION (PTO-152) which gives re | . Note the attached EXA ason(s) why the oath or | MINER'S AMENDMENT or NOT declaration is deficient. | ICE OF |
| 6. CORRECTED DRAWINGS (as "replacement sheets") must be | submitted. | | |
| (a) ☐ including changes required by the Notice of Draftsperson's | | (PTO-948) attached | |
| 1) 🔲 hereto or 2) 🔲 to Paper No./Mail Date | | | |
| (b) ☐ including changes required by the attached Examiner's Am Paper No./Mail Date | nendment / Comment or | in the Office action of | |
| Identifying indicia such as the application number (see 37 CFR 1.84(c each sheet. Replacement sheet(s) should be labeled as such in the he | e)) should be written on the | e drawings in the front (not the ba | ck) of |
| DEPOSIT OF and/or INFORMATION about the deposit o attached Examiner's comment regarding REQUIREMENT FOR | f BIOLOGICAL MATE | RIAL must be submitted. Not | e the |
| Attachment(s) | | | |
| . ☑ Notice of References Cited (PTO-892) | 5. Notice of Info | ormal Patent Application (PTO-1 | 52) |
| . Notice of Draftperson's Patent Drawing Review (PTO-948) | 6. ☐ Interview Su Paper No./N | mmary (PTO-413), ⁄lail Date | |
| . ☑ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date <u>5/23/2001</u> | 7. 🛭 Examiner's A | Amendment/Comment | |
| . Examiner's Comment Regarding Requirement for Deposit | 8. 🛛 Examiner's S | Statement of Reasons for Allowa | nce |
| of Biological Material | 9. | | |
| | | | |
| J.S. Patent and Trademark Office | | | |
| S.S. Patent and Trademark Office PTOL-37 (Rev. 1-04) Notice | | | |

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DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Stanley Gradisar on 3/8/2005.

Claims 3, 14, 25, and 32 are cancelled.

Claims 4-6, 15-16, 26-28, and 33-35 have been amended as follow:

Claim 4 depends on claim 1.

Claim 5 depends on claim 1.

Claim 6 depends on claim 1.

Claim 15 depends on claim 12.

Claim 16 depends on claim 12.

Claim 26 depends on claim 23.

Claim 27 depends on claim 23.

Claim 28 depends on claim 23.

Claim 33 depends on claim 30.

Claim 34 depends on claim 30.

Claim 35 depends on claim 30.

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Claim 1 has been amended as follows:

1. A method for automatically processing and managing spatial asset information in a repository, the method comprising:

defining instances primary observation types and associations between each of the specific instances;

identifying reference networks and geographic information system asset layers in the repository;

configuring the repository based on said instances definitions and said associations;

collecting field data;

converting said collected field data to specific observations;

correlating said specific observations to the appropriate said reference network and said geographic information system asset layers; and

updating said appropriate geographic information system asset layers in the repository;

wherein said collecting of field data step further comprises:

capturing free speech stating verbal observations containing voice data; capturing location data contemporaneously with each of said verbal observations;

time-stamping each of said captured verbal observations to create a raw verbal observation; and

time-stamping said capture location;

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Claim 12 has been amended as follows:

12. An apparatus for automatically processing and managing spatial asset information in a repository, the apparatus comprising:

defining means for defining instances of primary observation types and . associations between each of the specific instances;

identifying means for identifying reference networks and geographic information system asset layers in the repository;

configuring means for configuring the repository based on said instances definitions and said associations;

data collection means for collecting field data;

asset layers in the repository;

converting means for converting said collected field data to specific observations; correlating means for correlating said specific observations to the appropriate said reference network and said geographic information system asset layers; and updating means for updating said appropriate geographic information system

wherein said data collection means captures free speech stating verbal observations containing voice data and also captures location data contemporaneously With each of said verbal observations, and wherein the apparatus includes timestamping means for time-stamping each of said captured verbal observations to create a raw verbal observation and for time-stamping said captured location data.

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Claim 23 has been amended as follow:

23. Computer-readable media tangibly embodying a program of instructions executable computer perform a method for automatically processing and managing spatial asset information in repository, the method comprising:

defining instances of primary observation types and associations between each of the specific instances;

identifying reference networks and geographic information system asset layers in the repository;

configuring the repository based on said instances definitions and said associations;

collecting field data;

converting said collected field data to specific observations;

correlating said specific observations to the appropriate said reference network and said geographic information system asset layers;

updating said appropriate geographic information system asset layers in the repository;

wherein said collecting of field data step further comprises:

capturing free speech stating verbal observations containing voice data; capturing location data contemporaneously with each of said verbal observations;

time-stamping each of said captured verbal create a raw verbal observation; and

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time-stamping said captured location data.

Claim 30 has been amended as follow:

30. A computer programmed to execute process for automatically processing and managing spatial asset information in a repository, the process defining instances comprising:

defining instances of primary observation types and associations between each of the specific instances;

identifying reference networks and geographic information system asset layers in the repository;

configuring the repository based on said instances definitions and said associations;

collecting field data;

converting said collected field data to specific observations;

correlating said specific observations to the appropriate said reference network and said geographic information system asset layers; and

updating said appropriate geographic information system asset layers in the repository.

capturing free speech stating verbal observations containing voice data; capturing location data contemporaneously with each of said verbal observations;

time-stamping each of said captured verbal observations to create a raw verbal observation; and

time-stamping said captured location data.

Claim 37 has been amended as follow:

37. An apparatus for automatically processing and managing spatial asset information, the apparatus comprising:

a processing computer for receiving a plurality of field data that has been collected; and

data repository connectable to said processing computer for receiving processing results of said processing computer, wherein said data repository further comprises,

- a plurality of reference networks;
- a geographic information system having a plurality asset layers;
- a plurality of pre-defined instances of primary observation types; and
- a plurality pre-defined associations between each of said plurality of predefined instances of primary observation types, wherein said data repository is configured based upon said plurality of pre-defined instances of primary observation types and said plurality of pre-defined associations; wherein said processing computer,

converts each of said plurality of field data into an appropriate one said primary observation types;

correlates each of said converted primary observation types of each of said plurality of field data to an appropriate one of said plurality of reference networks and an appropriate one said plurality of asset layers; and wherein said collecting of field data further comprises:

capturing free speech stating verbal observations containing voice data; capturing location data contemporaneously with each of said verbal observations;

time-stamping each of said captured verbal create a raw verbal observation; and

time-stamping said captured location data.

Allowable Subject Matter

2. Claims 1-2, 4-13, 15-24, 26-31, 33-45 are allowed over prior art of record.

The following is an examiner's statement of reasons for allowance: Poelstra (US 4994971) teaches a system for setting up and keeping up-to-date datafiles for road traffic. The system includes a plurality of cameras position on an automobile, each of said cameras records video images of a particular section of the road. Said recorded video images of road are time-stamped, and the location of the traveling vehicle is recorded for later use road survey analyses. Buck et al. (US 5719771) teach a system for mapping occurrences of conditions in a transportation route. The system monitors conditions of the traveling route and collects data based on conditions and GPS information. The information is used to warn/alert later drivers of rough road conditions.

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Both Poelstra and Buck et al. still fail to specifically disclose the step of time-stamping raw verbal observations of the road's condition and time-stamping the captured location associated with the road conditions. Furthermore, it would have not been obvious to one of ordinary skill in the art at the time of invention to modify Poelstra and/or Buck et al. to obtain the claimed invention. Therefore, claims 1-2, 4-13, 15-24, 26-31, 33-45 are allowed over prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huyen Vo whose telephone number is 703-305-8665. The examiner can normally be reached on M-F, 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on 703-305-4827. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Huyen X. Vo

March 29, 2005

SUSAN MCFADDEN PRIMARY EXAMINER